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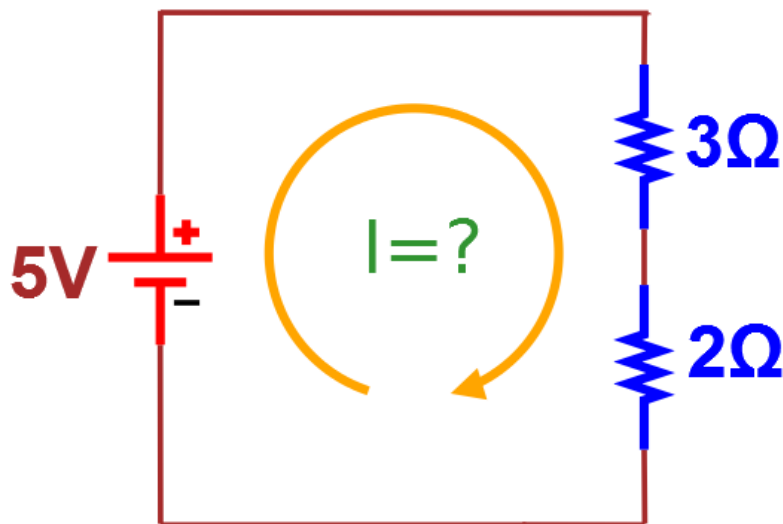
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Electrical Problem – 21

Instructions:

1. Do not discuss with any one while solving the problems
2. Do not use internet while solving the problems
3. Do not use books while solving the problems
4. Do not try to copy from others
5. Do the problems in an easy way.



$$\begin{aligned} I &= V/(R_1 + R_2) \\ &= 5V/(3 + 2) \\ &= 1A \end{aligned}$$



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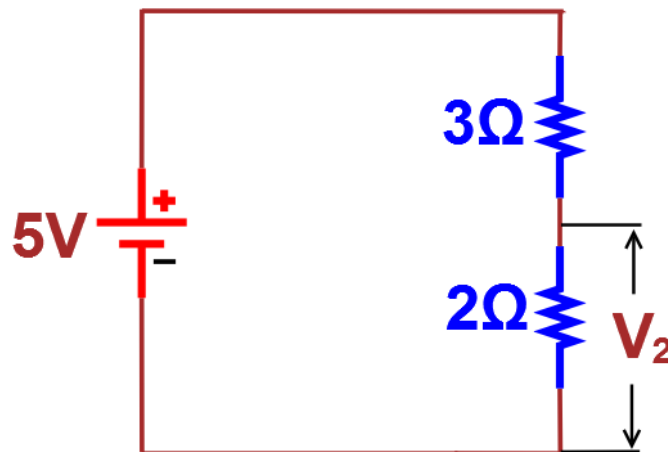
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Electrical Problem – 22

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$$\begin{aligned} I &= 1A \\ V_2 &= IR_2 \\ &= 1 * 2 \\ &= 2V \end{aligned}$$



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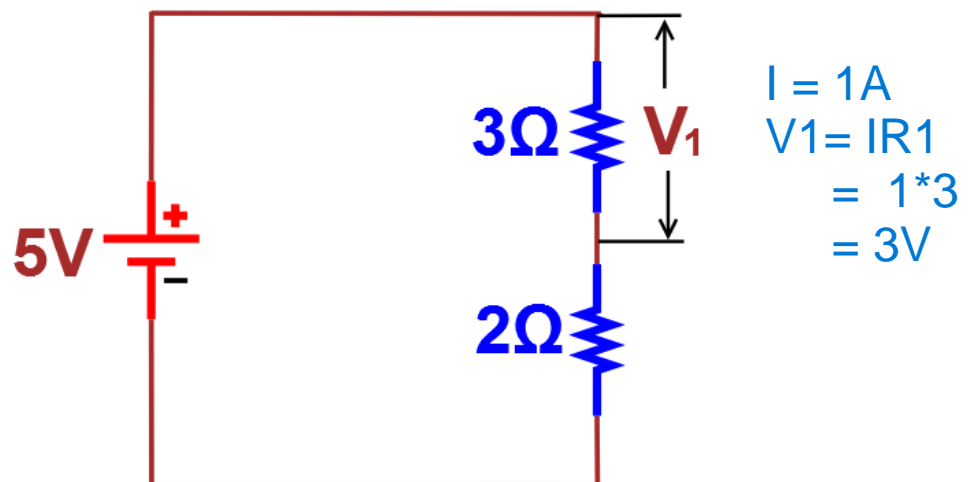
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Electrical Problem – 23

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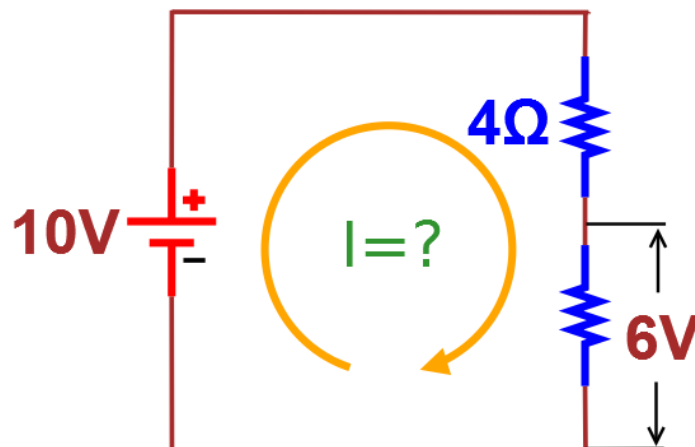
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Electrical Problem – 24

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$$V = 10V$$

$$V_2 = 6V$$


$$V_1 = 10 - 6 = 4V$$

$$I = V_1 / R_1 = 4 / 4 = 1A$$



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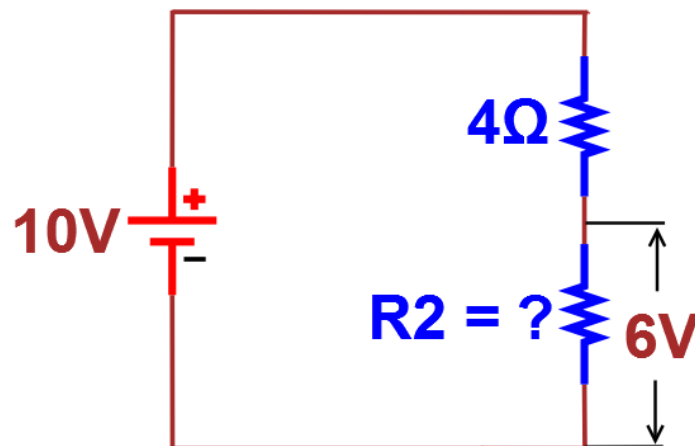
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Electrical Problem – 25

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$$V = 10V$$

$$V_2 = 6V$$

$$V_1 = 4V$$

$$\text{Then } I = 1A$$

$$R_2 = V_2 / I$$

$$= 6V / 1A$$

$$= 6\Omega$$



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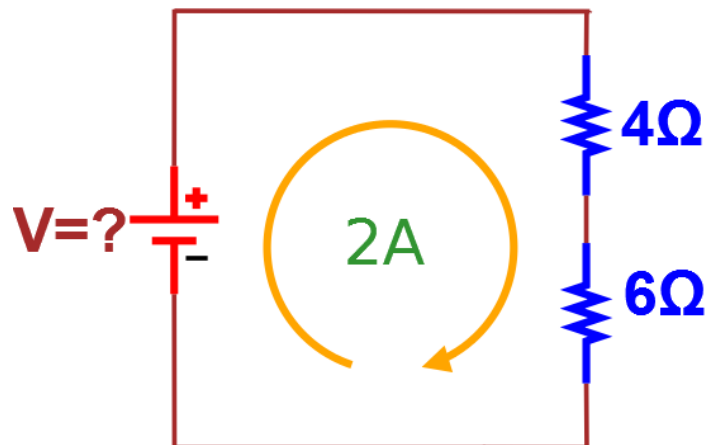
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Electrical Problem – 26

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$$\begin{aligned} V &= I \cdot (R_1 + R_2) \\ &= 2 \cdot (4 + 6) \\ &= 20V \end{aligned}$$



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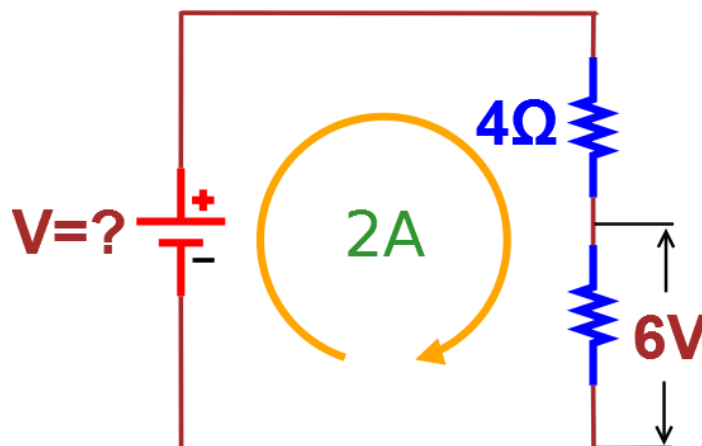
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Electrical Problem – 27

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$$\begin{aligned} V &= ? , I = 2A , R1 = 4\Omega \\ V1 &= IR1 = 8V \\ V2 &= 6V \\ V &= V1 + V2 = 8 + 6 = 14V \end{aligned}$$



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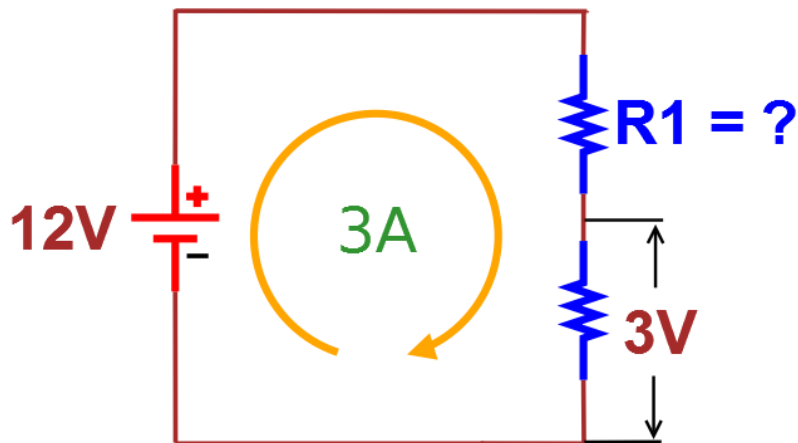
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Electrical Problem – 28

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$$\begin{aligned} V &= 12V, I = 3A, V_2 = 3V \\ V_1 &= V - V_2 = 12 - 3 = 9V \\ R_1 &= V_1 / I = 9V / 3A = 3\Omega \end{aligned}$$



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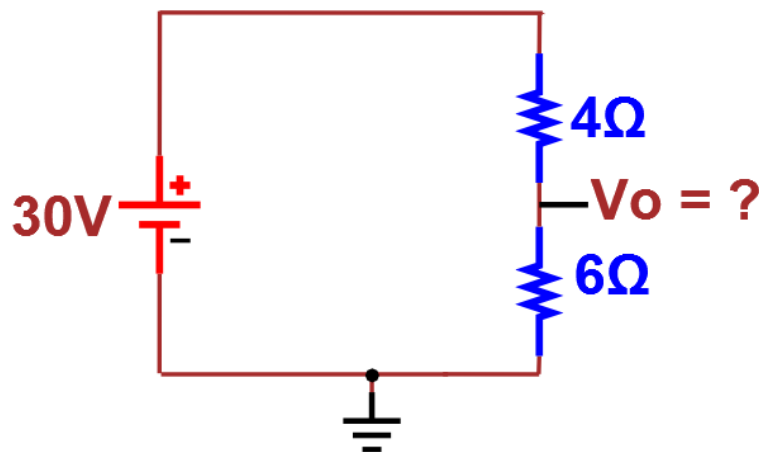
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Electrical Problem – 29

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$$\begin{aligned} V &= 30V \\ I &= 30/10 = 3A \\ V_1 &= IR_1 = 12V \\ V_o &= V - V_1 \\ &= 30 - 12 \\ &= 18V \end{aligned}$$



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Electrical Problem – 30

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